

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/721,445	
			Filing Date	11/24/03	
			First Named Inventor:	Hossein Sedarat	
			Art Unit	2611	
			Examiner Name	Williams, Lawrence B.	
			Attorney Docket Number	6491P066	
Sheet	1	of	1		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)				
/LW/		US-	5,867,539	2/2/99	Koslov	
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ^a
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner Signature	/Lawrence Williams/ (12/30/2007)	Date Considered	
-----------------------	----------------------------------	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS.
 SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.
 If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/721,445
				Filing Date	November 24, 2003
				First Named Inventor:	Hossein Sedarat
				Art Unit	2611
Examiner Name	Williams, Lawrence B.				
Sheet	2	of	4	Attorney Docket Number	6491.P066
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T ²
/LW/		FRANKLIN, CURT, "How DSL Works," How Stuff Works, http://computer.howstuffworks.com/dsl.htm/printable , printed November 16, 2004.			
/LW/		SEDARAT, HOSSEIN, et al., "Impulse Noise Protection for Multi-Carrier Communication Systems", Submitted to IEEE ICASSP (2005).			
/LW/		SEDARAT, HOSSEIN, et al., "Multicarrier Bit-Loading in Presence of Biased Gaussian Noise Source", IEEE Consumer Communication and Networking Conference, January 2005.			
/LW/		FISCHER, ROBERT F.H., et al., "A New Loading Algorithm for Discrete Multitone Transmission," IEEE, 1996, pp. 724-728.			
/LW/		LAMPE, LUTZ H.-J., et al., "Performance Evaluation of Non-Coherent Transmission over Power Lines," 8 pgs.			
/LW/		HENKEL, WENER, ET AL., "Maximizing the Channel Capacity of Multicarrier Transmission by Suitable Adaptation of the Time-Domain Equalizer," IEEE, Vol. 48, no. 12, December 2000.			
/LW/		LASHKARIAN, NAVID, et al., "Fast Algorithm for Finite-Length MMSE Equalizers with Application to Discrete Multitone Systems," IEEE 1999, pp. 2753-3756.			
/LW/		MELSA, PETER J.W., et al., "Impulse Response Shortening for Discrete Multitone Transceivers," IEEE Vol. 44, no. 12, December 1996, pp. 1662-1672.			
/LW/		AL-DHAHIR, NAOFAL, ET AL., "Optimum Finite-Length Equalization for Multicarrier Transceivers," IEEE Vol. 44, No. 1, January 1996, pp. 56-64.			
/LW/		LEKE, ACHANKENG, et al., "A Maximum Rate Loading Algorithm for Discrete Multitone Modulation Systems," IEEE 1997, pp. 1514-1518.			
/LW/		BINGHAM, JOHN A.C., "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come," IEEE, May 1990, pp. 5-14.			

Examiner Signature	/Lawrence Williams/ (12/30/2007)	Date Considered	
--------------------	----------------------------------	-----------------	--

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/721,445
				Filing Date	November 24, 2003
				First Named Inventor:	Hossein Sedarat
				Art Unit	2611
				Examiner Name	Williams, Lawrence B.
Sheet	3	of	4	Attorney Docket Number	6491.P066
NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T ²
/LW/		ARSLAN, G., et al., "Equalization for Discrete Multitone Transceivers to Maximize Bit Rate," IEEE, Vol. 49, No. 12, December 2001, pp. 3123-3135			
/LW/		FARHANG-BOROUJENY, BEHROUZ, et al., "Design Methods for Time-Domain Equalizers in DMT Transceivers," IEEE, Vol. 49, No. 3, March 2001, pp. 554-562.			
/LW/		WYGLINSKI, ALEXANDER M., et al., "An Efficient Bit Allocation for Multicarrier Modulation," IEEE Wireless Communication, Networking Conference, Atlanta, GA, March 2004, 4 pgs.			
/LW/		"Draft Standard," Network and Customer Installation Interfaces- Asymmetric Digital Subscriber Line (ADSL) Metallic Interface, Draft American National Standard for Telecommunication, Alliance for Telecommunications Industry Solutions, T1.413-1998.			
/LW/		MILOSEVIC ET AL., "Simultaneous Multichannel Time Domain Equalizer Design Based on the Maximum Composite Shortening SNR", Dept. of Electrical and Computer Eng., The University of Texas, Austin, Texas, Prior to filing date of current application, pp. 5 total.			
/LW/		MISAO FUKUDA et al., "A Line Terminating LSI Using Echo Cancelling Method for ISDN Subscriber Loop Transmission", IEEE Journal on Selected Areas in Communications, Vol. 6, No. 3, April 1988, pp. 476-483.			
/LW/		CHENG-SHING WU et al., "A Novel Cost-Effective Multi-Path Adaptive Interpolated FIR (IFIR)-Based Echo Canceller", © 2000 IEEE, pp. V-453-V-456.			
/LW/		Ranjan V. Sonalkar et al., "Shannon Capacity of Frequency-Overlapped Digital Subscriber Loop Channels", © 2002 IEEE, pp. 1741-1745.			
/LW/		IVAN A. PEREZ-ALVAREZ et al., "A Differential Error Reference Adaptive Echo Canceller for Multilevel PAM Line Codes"" *Work supported by National Project T1C95-0026, © 1996, IEEE, pp. 1707-1710			
/LW/		NADEEM AHMED et al., "Optimal Transmit Spectra for Communication in the Presence of Crosstalk and Imperfect Echo Cancellation", Copyright 2001 IEEE, pp. 17-21.			
/LW/		Serial No. 10/789,552, Office Action dated 04/09/2007, 10 pages.			

Examiner Signature	/Lawrence Williams/ (12/30/2007)	Date Considered	
--------------------	----------------------------------	-----------------	--

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.
If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

[illegible]

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)


Complete if Known

Application Number	10/721,445
Filing Date	November 24, 2003
First Named Inventor:	Hossein Sedarat
Art Unit	2611
Examiner Name	Williams, Lawrence B.
Attorney Docket Number	6491.P066

Sheet 1 of 4

U.S. PATENT DOCUMENTS

CITED PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)				
	/LW/	US-	5,285,474	2/8/1994	Chow et al.	
		US-	5,909,178 A	6/1/1999	Balch et al.	
		US-	6,161,209 A	12/12/2000	Moher, Michael I.	
		US-	6,433,819 B1	8/13/2002	Li et al.	
		US-	6,633,545 B1	10/14/2003	Milbrandt, Celite	
		US-	6,721,394 B1	4/13/2004	Murphy et al.	
		US-	6,738,418 B1	5/18/2004	Stiscia et al.	
		US-	6,999,507 B2	2/14/2006	Jin, Gary Qu	
		US-	7,035,661 B1	4/25/2006	Yun, Louis C.	
		US-	7,155,007 B1	12/26/2006	Upton, Zachary Michael	
		US-	2002/0044597 A1	4/18/2002	Shively et al.	
		US-	2003/0048368 A1	3/13/2003	Bosco et al.	
		US-	2003/0099286 A1	5/29/2003	Graziano et al.	
		US-	2005/0047514 A1	3/3/2005	Bolinth et al.	
	/LW/	US-	2005/0111561	5-2005	Sedarat et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				

Examiner
Signature

/Lawrence Williams/ (12/30/2007)

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS.
SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.